

इंटरनेट

मानक

### Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 3051 (1988): Dimensions and tolerances for wrought copper and copper alloy plate [MTD 8: Copper and Copper Alloys]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE



*Indian Standard*  
**DIMENSIONS AND TOLERANCES FOR  
WROUGHT COPPER AND COPPER  
ALLOYS PLATE**

**( *First Revision* )**

First Reprint DECEMBER 1991

UDC 669'3-415 : 389'63

© Copyright 1989

**BUREAU OF INDIAN STANDARDS  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002**

# Indian Standard

## DIMENSIONS AND TOLERANCES FOR WROUGHT COPPER AND COPPER ALLOYS PLATE

### ( First Revision )

#### 0. FOREWORD

**0.1** This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards on 15 December 1988, after the draft finalized by the Copper and Copper Alloys Sectional Committee had been approved by the Structural and Metals Division Council.

**0.2** This standard was first published in 1965. In this revision, the following modifications have been incorporated:

- a) Tolerances on length, width and thickness of cold rolled plate for thickness 25 to 75 mm have been included,
- b) Tolerance on diameter of cold rolled blanks has been added, and

c) Tolerance on thickness of hot worked plate for 25 to 75 mm thickness has been included.

**0.3** For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

\*Rules for rounding off numerical values (*revised*).

#### 1. SCOPE

**1.1** This standard specifies the dimensions and tolerances for wrought copper and copper alloy plate.

#### 2. TERMINOLOGY

**2.1** For the purpose of this standard, the following definition in addition to those given in IS : 3288 (Part 3)-1986\* shall apply.

**2.1.1 Plate**—Flat product over 10.0 mm thick and over 300 mm wide.

#### 3. DIMENSIONS

**3.1** The preferred dimensions of the plate are given below. The plate of other dimensions may be supplied as required by the purchaser or as mutually agreed between the purchaser and the manufacturer.

**3.1.1 Length**—The length of plate in millimetres shall be as follows:

160	250	400
180	280	450
200	320	500
220	360	560

630	1 250	2 200
710	1 400	2 500
800	1 600	2 800
900	1 800	3 200
1 000	2 000	3 600
1 100		

**3.1.2 Width**—The width of plate in millimetres shall be as follows:

300	630	1 600
320	710	1 800
360	800	2 000
400	1 000	2 500
450	1 100	2 800
500	1 250	3 200
560	1 400	3 600

**3.1.3 Thickness**—The thickness of plate in millimetres shall be as follows:

10.5	28.0
11.2	32.0
12.5	35.0
14.0	36.0
15.0	38.0
16.0	40.0
18.0	50.0
19.0	64.0
20.0	65.0
21.0	66.0
22.0	75.0
25.0	

\*Glossary of terms relating to copper and copper alloys:  
Part 3 Wrought forms.

**4. TOLERANCES****4.1 Cold Rolled Plate**

**4.1.1 Length and Width**—The tolerances on length and width of cold-rolled plate shall be as given in Table 1.

**4.1.2 Thickness**—Tolerances on thickness of cold-rolled plate shall be as given in Table 2.

**4.2 Cold Rolled Blank**

**4.2.1 Diameter**—Tolerance\* on diameter of cold rolled blank shall be as given in Table 3.

**4.3 Hot Worked Plate**

**4.3.1 Thickness**—Tolerances on thickness of hot-worked plate shall be as given in Table 4.

**4.3.2 Mass**—Tolerances on mass of hot worked plate shall be as given in Table 5.

**TABLE 1 TOLERANCES ON WIDTH AND LENGTH OF COLD ROLLED PLATE**

( Clause 4.1.1 )

All dimensions in millimetres.

THICKNESS		WIDTH OR LENGTH		TOLERANCE ( PLUS AND MINUS )	
Over	Up to and Including	Over	Up to and Including	Machined	Slit or Sheared
(1)	(2)	(3)	(4)	(5)	(6)
10.0	12.5	300 600 1 500	600 1 500 3 600	0.5 1.5 3.0	1.5 3.0 4.0
12.5	25.0	300 600 1 500	600 1 500 3 600	1.5 3.0 6.0	3.0 6.0 8.0
25.0	50.0	300 600	600 3 600	3.0 6.0	6.0 8.0
50.0	75.0	300	3 600	6.0	8.0

**TABLE 2 TOLERANCES ON THICKNESS OF COLD ROLLED PLATE**

( Clause 4.1.2 )

All dimensions in millimetres.

SPECIFIED THICKNESS		TOLERANCE ( PLUS AND MINUS )
Over	Up to and Including	
(1)	(2)	(3)
10.0	12.5	0.30
12.5	20.0	0.35
20.0	25.0	0.40
25.0	50.0	0.50
50.0	75.0	0.60

**TABLE 3 TOLERANCES ON DIAMETER OF COLD ROLLED BLANK**

( Clause 4.2.1 )

All dimensions in millimetres.

SPECIFIED THICKNESS		DIAMETER OR RADIUS FOR HALF CIRCLES		TOLERANCE ( PLUS AND MINUS )	
Over	Up to and Including	Over	Up to and Including	Machined or Blank	Sawn
(1)	(2)	(3)	(4)	(5)	(6)
10	12.5	— 600	600 1 500	0.4 0.8	0.8 1.5
12.5	25	— 600	600 1 500	0.8 1.5	1.5 1.5

**TABLE 4 TOLERANCES ON THICKNESS OF HOT WORKED PLATE**

( Clause 4.3.1 )

All dimensions in millimetres.

SPECIFIED THICKNESS		TOLERANCE	
Over	Up to and Including	Minus	Plus
(1)	(2)	(3)	(4)
10·0	25·0	0·8	5 percent
25·0	50·0	1·0	4 percent
50·0	75·0	1·0	3 percent

**TABLE 5 TOLERANCES ON MASS OF HOT WORKED PLATE**

( Clause 4.3.2 )

SPECIFIED WIDTH OR DIAMETER		TOLERANCE ON CALCULATED SPECIFIED WEIGHT ( PERCENT )	
Over mm	Up to and Including mm	Minus	Plus
(1)	(2)	(3)	(4)
—	2 400	0	5
2 400	—	0	7·5

**Bureau of Indian Standards**

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 1986* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

**Copyright**

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

**Revision of Indian Standards**

Indian Standards are reviewed periodically and revised, when necessary and amendments, if any, are issued from time to time. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition. Comments on this Indian Standard may be sent to BIS giving the following reference:

Doc : No. SMDC 11 (2955)

**Amendments Issued Since Publication**

Amend No.	Date of Issue	Text Affected

**BUREAU OF INDIAN STANDARDS**

**Headquarters :**

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002  
Telephones : 331 01 31, 331 13 75

Telegrams : Manaksanstha  
( Common to all Offices )

**Regional Offices :**

	Telephone
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 311 01 31 331 13 75
Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola CALCUTTA 700054	37 86 62
Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036	53 38 43
Southern : C. I. T. Campus, IV Cross Road, MADRAS 600113	235 02 16
Western : Manakalaya, E9 MIDC, Marol, Andheri ( East ) BOMBAY 400093	6 32 92 95
Branches : AHMADABAD, BANGALORE, BHOPAL, BHUBANESHWAR, COIMBATORE, FARIDABAD, GHAZIABAD, GUWAHATI, HYDERABAD, JAIPUR, KANPUR, PATNA, SRINAGAR. THIRUVANANTHAPURAM.	